

## ABSTRACT

A method for reducing the peak-to-average ratio in an OFDM communication signal is provided. The method includes defining a constellation having a plurality of symbols, defining a symbol duration for the OFDM communication signal, and defining a plurality of time instants in the symbol duration. A plurality of tones are allocated to a particular communication device, and a discrete signal is constructed in the time domain by mapping symbols from the constellation to the time instants. A continuous signal is generated by applying an interpolation function to the discrete signal such that the continuous signal only includes sinusoids having frequencies which are equal to the allocated tones.

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